

AIR POLLUTION CONTROL REGULATION NO. 10

AIR POLLUTION EPISODES

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RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
DIVISION OF AIR AND HAZARDOUS MATERIALS  
AIR POLLUTION CONTROL REGULATION NO. 10

AIR POLLUTION EPISODES

10. Air Pollution Episodes

10.1 Episode Criteria

Conditions justifying the proclamation of an air pollution alert, air pollution warning or air pollution emergency shall be deemed to exist whenever the Director determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. In making this determination, the Director will be guided by the following criteria:

(a) "Air Pollution Forecast": An interval watch by the Division of Air Pollution Control shall be actuated by a National Weather Service advisory that Atmospheric Stagnation Advisory is in effect or the equivalent local forecast of stagnant atmospheric condition.

(b) "Air Pollution Alert": The Alert level is that concentration of pollutants at which first stage control action is to begin. An Alert will be declared when any one of the following levels is reached at any monitoring site:

SO<sub>2</sub> -- 500 ug/m<sup>3</sup> (0.19 ppm), 24-hour average.

Particulate -- 3.0 COHs, 24-hour average.

SO<sub>2</sub> and Particulate Combined -- Product of SO<sub>2</sub> (ppm) for a 24-hour average and Particulate (COHs) for a 24-hour average equal to 0.2.

CO -- 17 mg/m<sup>3</sup> (15 ppm), 8-hour average.

Oxidant (O<sub>3</sub>) -- 400 ug/m<sup>3</sup> (0.2 ppm), 1-hour average.

NO2 -- 1130 ug/m3 (0.6 ppm), 1-hour average, 282 ug/m3 (0.15 ppm), 24-hour average.

and meteorological conditions are such the pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

- (c) "Air Pollution Warning": The Warning level indicates that air quality is continuing to degrade and that additional control actions are necessary. A warning will be declared when any one of the following levels is reached at any monitoring

site:

SO2 -- 800 ug/m3 (0.31 ppm), 24-hour average.

Particulate -- 5.0 COHs, 24-hour average.

SO2 and Particulate Combined -- Product of SO2 (ppm) for a 24-hour average and Particulate (COHs) for a 24-hour average equal to 0.8.

CO -- 34 mg/m3 (30 ppm), 8-hour average.

Oxidant (O3) -- 800 ug/m3 (0.4 ppm), 1-hour average.

NO2 -- 2260 ug/m3 (1.2 ppm), 1-hour average, 565 ug/m3 (0.3 ppm), 24-hour average.

and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

- (d) "Air Pollution Emergency": The Emergency level indicates that air quality is continuing to degrade to a level that should never be reached and that the most stringent control actions are necessary. An emergency will be declared when any one of the following levels is reached at any monitoring site:

SO2 -- 1309 ug/m3 (0.5 ppm), 24-hour average.

Particulate -- 7.0 COHs, 24-hour average.

SO2 and Particulate Combined -- Product of SO2 (ppm) for a 24-hour average and Particulate (COHs)

for a 24-hour average equal to 1.2.

CO -- 46 mg/m<sup>3</sup> (40 ppm), 8-hour average.

Oxidant (O<sub>3</sub>) -- 1200 ug/m<sup>3</sup> (0.6 ppm), 1-hour average.

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NO<sub>2</sub> -- 3000 ug/m<sup>3</sup> (1.6 ppm), 1-hour average, 750 ug/m<sup>3</sup> (0.4 ppm), 24-hour average.

and meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours.

(e) "Termination": Once declared, any status reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At such time, the next lower status will be assumed.

#### 10.2 Emission Reduction Plans

(a) Air Pollution Alert - When the governor declares an Air Pollution Alert, any person responsible for the operation of a source of air pollutants as set forth in Table I shall take all Air Pollution Alert actions as required for such sources of air pollutants and shall put into effect the preplanned abatement strategy for an Air Pollution Alert.

(b) Air Pollution Warning - When the governor declares an Air Pollution Warning, any person responsible for the operation of a source of air pollutants as set forth in Table II shall take all Air Pollution Warning actions as required for such sources of air pollutants and shall put into effect the preplanned abatement strategy for an Air Pollution Warning.

(c) Air Pollution Emergency - when the governor declares an Air Pollution Emergency, any person responsible for the operation of a source of air pollutants as described in Table III shall take all Air Pollution Emergency actions as required for such sources of air pollutants and

shall put into effect the preplanned abatement strategy for an Air Pollution Emergency.

(d) When the governor determines that a specified criteria level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, he shall notify such source(s) that the preplanned abatement strategies of Tables I, II and III or the standby plans are required, insofar as it applies to such source(s), and shall be put into effect until the criteria of the specified level are no longer met. 10.3 Preplanned Abatement Strategies

(a) Any person responsible for the operation of a source of air pollutants as set forth in Tables I-III shall prepare standby plans for reducing the emissions of air pollutants during periods of an Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Standby plans shall be designed to reduce or eliminate emissions of air pollutants in accordance with the objectives set forth in Tables I-III which are made a part of this section.

(b) Any person responsible for the operation of a source of air pollutants not set forth under Section 10.3(a) shall, when requested by the director in writing, prepare standby plans for reducing the emission of air pollutants during periods of an Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Standby plans shall be designed to reduce or eliminate emissions of air

pollutants in accordance with the objectives set forth in Tables I-III.

(c) Standby plans as required under Section 10.3(a) and 10.3(b) shall be in writing and identify the sources of air pollutants, the approximate amount of reduction of pollutants, and a brief description of the manner in which the reduction will be achieved during an Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. (d)

During a condition of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency, standby plans as required by this section shall be made available on the premises to any person authorized to enforce the provisions of applicable rules and regulations.

(e) Standby plans as required by this section shall be submitted to the director upon request within thirty (30) days of the receipt of such request; such standby plans shall be subject to review and approval by the director. If, in the opinion of the director, a standby plan does not effectively carry out the objectives as set forth in Tables I-III, the director may disapprove it, state his reason for disapproval and order the preparation of an amended standby plan within the time period specified in the order.

TABLE I - ABATEMENT STRATEGIES EMISSIONS REDUCTION PLAN

ALERT LEVEL

PART A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12 noon and 4 PM.
3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 PM.
4. Persons operating motor vehicles should eliminate all unnecessary operations.

PART B. SOURCE CURTAILMENT

Any persons responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Alert Level.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power reduction by generating facilities. utilization of fuels having low ash and sulfur content.	a. Substantial
of noon to 4 PM) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization mid-day (12
reduction by diverting electric power generation to facilities outside of Alert Area.	c. Substantial
process steam facilities.	2. Coal and oil-fired
	a. Substantial reduction by generating utilization of fuels having low ash and sulfur content.
of noon to 4 PM) atmospheric turbulence for boiler lancing and soot blowing.	b. Maximum utilization mid-day (12
reduction of load demands consistent with continuing plant operations.	c. Substantial steam
a. Substantial reduction of air pollution from manufacturing operations	3. Manufacturing industries of the following classifications:
Industry	Primary Metals
Petroleum Refining Operations	by curtailing, postponing or deferring production and all operations.
Chemical Industries	b. Maximum reduction by deferring trade disposal
Mineral Processing Industries	
Paper and Allied Products	
waste Grain Industry	



operations which  
emit solid particles, gas  
vapors or malodorous  
substances.

c. Maximum reduction of heat  
load demands for  
processing.

d. Maximum utilization of  
mid-day (12 noon to 4 PM)  
atmospheric turbulence for  
boiler lancing or soot  
blowing.

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TABLE II - EMISSION REDUCTION PLANS

WARNING LEVEL

PART A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.
3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 PM.
4. Persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

#### PART B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Warning Level.

Source of Air Pollution	Control Action
1. Coal or oil fired electric power reduction by generating facilities utilization of fuels having lowest ash and sulfur content.	a. Maximum
b. Maximum utilization of mid-day (12 noon to 4 PM) atmospheric turbulence for boiler lancing and soot blowing.	c. Maximum reduction diverting
by electric power generation to facilities outside of Warning Area.	2. Coal and oil-fired process generating facilities
steam a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content.	b. Maximum utilization mid-day (12 noon to 4 PM) atmospheric turbulence for boiler lancing and soot blowing.

use a  
 action to be taken  
 if an emergency develops. 3. Manufacturing industries which  
 a. Maximum reduction of air require considerable lead  
 time contaminants from for shut-down including the  
 manufacturing operations following  
 classifications: by, if necessary, assuming  
 reasonable economic  
 Petroleum Refining hardships by postponing  
 Chemical Industries production and  
 allied Primary Metals Industries operation.  
 Glass Industries b. Maximum reduction  
 by Paper and Allied Products deferring trade  
 waste disposal  
 operations which  
 emit solid particles,  
 gases, vapors or  
 malodorous substances.  
 c. Maximum reduction of heat  
 load demands for  
 processing.  
 d. Maximum utilization of  
 mid-day (12 noon to 4  
 P.M.) atmospheric  
 turbulence for boiler  
 lancing or soot blowing. 4. Manufacturing  
 industries require a. Elimination of air pol- relatively  
 short lead times for lutants from manufacturing  
 shut-down including the following operations by ceasing,  
 classifications: curtailing,  
 postponing or  
 deferring production and  
 allied operations to the Primary Metals Industries  
 extent possible without Chemical Industries  
 causing injury to persons Mineral  
 Processing Industries or damage to equipment.  
 Grain Industry b. Elimination of air  
 pollutants from trade  
 waste disposal  
 processes which  
 emit solid  
 particles, gases, vapors  
 or malodorous substances.  
 c. Maximum reduction of heat  
 load demands for  
 processing.  
 d. Maximum utilization of  
 mid-day (12 noon to 4  
 P.M.) atmospheric  
 turbulence for boiler

lancing or soot blowing.

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TABLE III - EMISSION REDUCTION PLANS

EMERGENCY LEVEL

PART A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.
3. All places of employment described below shall immediately cease operations:
  - a. Mining and quarrying of nonmetallic minerals.
  - b. All construction work except that which must proceed to avoid emergent physical harm.
  - c. All manufacturing establishments except those required to have in force an air pollution emergency plan.
  - d. All wholesale trade establishments, i.e. places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.
  - e. All offices of local, county and state government including authorities, joint meetings and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county or state government, authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.
  - f. All retail trade establishments except pharmacies, surgical supply distributors and stores primarily engaged in the sale of food.
  - g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.
  - h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.
  - i. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing,

blueprinting; photocopying, mailing, mailing list and  
stenographic services; equipment rental services,  
commercial testing laboratories. j. Automobile repair,  
automobile services, garages.

k. Establishments rendering amusement and recreational  
services including motion picture theaters.

l. Elementary and secondary schools, colleges, universities,  
professional schools, junior colleges, vocational schools  
and public and private libraries.

4. All commercial and manufacturing establishments not included  
in this order will institute such actions as will result in  
maximum reduction of air pollutants from their operation by  
ceasing, curtailing or postponing operations which emit air  
pollutants to the extent possible without causing injury to  
persons or damage to equipment. 5. The use of motor vehicles is  
prohibited except in emergencies with the approval of local  
or State police.

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#### PART B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air  
pollutants listed below shall take all required control actions  
for this Emergency Level.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power reduction by generating facilities. utilization of fuels having lowest ash and sulfur content.	a. Maximum
b. Maximum utilization of mid-day (12-noon to 4 P.M.) atmospheric turbulence for boiler lancing or soot blowing.	
c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area.	
2. Coal and oil-fired process steam by generating facilities. and steam to absolute necessities consistent with preventing equipment	a. Maximum reduction reducing heat demands

damage.  
 of  
 noon to 4  
 atmospheric  
 turbulence for boiler  
 lancing and soot blowing.  
 c. Taking the action called  
 for in the emergency plan. 3. Manufacturing  
 industries of the a. Elimination of air pol-  
 following classifications: lutants from  
 manufacturing  
 operations by ceasing, Primary Metals Industries  
 curtailing, postponing or Petroleum Refining  
 deferring production and Chemical Industries  
 allied operations to the Mineral  
 Processing Industries extent possible without  
 Grain Industry causing injury to persons  
 Paper and Allied Products or damage to  
 equipment. b.  
 Elimination of air  
 pollutants from trade  
 waste disposal processes  
 which emit solid  
 particles, gases, vapors  
 or malodorous substances.  
 c. Maximum reduction of heat  
 load demands for  
 processing.  
 d. Maximum utilization of  
 mid-day (12 noon to 4  
 P.M.) atmospheric  
 turbulence for boiler  
 lancing or soot blowing.

